

WHAT IS CLAIMED IS:

1. A method for reducing biological oxygen demand in an aqueous waste stream, wherein said waste stream contains from about 0.02% to about 3.0% magnesium chloride (weight percent) or an equivalent molar amount of divalent magnesium cation, said method comprising the step of aerating the waste stream for a time up to about seven days.
2. The method of claim 1, wherein the step of aerating is from one to seven days.
3. The method of claim 1 or 2, wherein flocculated material is removed prior to the step of aeration.
4. The method of any of claims 1 to 3, wherein the waste stream contains from about 0.02% to about 0.5% MgCl₂ (weight/volume) or an equivalent amount of divalent magnesium cation.
5. The method of any of claims 1 to 4, wherein the step of aerating maintains a dissolved oxygen level from about 1 to about 8 ppm oxygen.
6. The method of claim any of claims 1 to 5, wherein the waste stream is from an animal meat processing facility, from a plant food processing facility, from a fermentation facility or from an organic chemical facility.
7. The method of claim 6, wherein the waste stream is from an animal meat processing facility and wherein a magnesium chloride-dissolved air flotation process has been employed to remove flocculated material, prior to the step of aerating, from the waste stream.
8. The method of any of claims 1 to 7, wherein the step of aerating results in foam formation and wherein the method further comprises the step of foam removal from the waste water.
9. The method of any of claims 1 to 8, wherein the step of aerating is carried out using a Venturi system.